

REFERENCES

- ALI, S. & S.D. RIPLEY (1998): Handbook of the Birds of India and Pakistan. Vol. 9. Second edn. Oxford University Press, Delhi. Pp. 130-132.
 CLEMENT, P. & R. HATHAWAY (2000): Thrushes. Christopher Helm, London. Pp. 377-381.
 ELKINS, N. (1998): Weather and Bird Behaviour. Second Edition. T & AD Poyser, London. Pp. 155-162.
 GRIMMETT, R., C. INSKIPP & T. INSKIPP (1998): Birds of the Indian Subcontinent. Christopher Helm. Pp. 628-629.

12. 'NEW BIRD DESCRIPTIONS WITHOUT PROPER VOUCHER SPECIMENS': FURTHER TO KANNAN¹

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Kannan's (2007) review of the issues surrounding the description of the Bugun *Liocichla* *Liocichla bugunorum* (Athreya 2006) is wide-ranging, fair-minded and good-natured, but in missing a few points and dwelling perhaps too long on others, it requires a little further perspective.

I have deliberately put the main title of my commentary here in inverted commas in order to indicate that it is Kannan's, not mine. This is because I do not share the view that the Bugun *Liocichla* was described without a proper voucher specimen. This is the first crucial point, which Kannan at first admits, but then spends much time questioning. If it is the case that 'an animal or a part of an animal' is required to serve as the type of a new species under the rules of the International Commission on Zoological Nomenclature (ICZN), then the feathers, including diagnostic ones from the tail, provided by Athreya must be allowed to constitute a 'proper voucher specimen'. Further debate on the issue is irrelevant: Athreya broke no rules, and Kannan's view that feathers are of limited value, and his comment that 'Without a proper voucher specimen, the taxonomic status of the newly reported *Liocichla* will always be open to doubt', are both, I think, off the mark. The same can be said of all the criticisms and complaints that followed in the wake of the description of *Laniarius liberatus*, for which feathers and blood vouchsafed the existence of the animal from which they came (and which, incidentally, have now been successfully used to demonstrate that *liberatus* is a colour morph: Nguembock *et al.* 2008). A recent exchange (Dubois and Nemésio 2007; Donegan 2008) covers these issues in far greater detail, but reaches the same conclusion.

Kannan points out that photographs can be insufficient to reflect all true characters, yielding a fraction of what is gleanable from a specimen, and can even be doctored or deteriorate. It is, however, worth remembering that photographs can sometimes tell us taxonomically useful things that museum skins cannot, unless the collector has noticed and documented them (eye and bare-part colour in

particular, but also jizz). In any case the point about photographs is their great value as supporting evidence, while the point about science is its repeatability — within weeks of the announcement of the new species, birdwatchers and biologists were making their way to Eaglenest to see it for themselves. Athreya's use of photographs was essentially supplementary (although of course they supplied the most convincing testimony of all), and it is worth noting that many modern descriptions of new bird species carry photographs in this support role.

However, there is a crucial issue here, untreated by Kannan or indeed by Athreya (although I mentioned it to the latter in our correspondence), which is that recently a new species of animal was described, in no less a journal than *Science*, using only photographs as the type material (Jones *et al.* 2005). It would be interesting to know how Kannan's museum ornithologists have reacted to this development, rendered all the more surprising by its support by representatives of ICZN (Polaszek *et al.* 2005). To me, this seems a far more problematic circumstance: digital photographs can easily be altered, and I cannot see how this does not expose taxonomy to fraud. Nevertheless, the facts are that (1) since 2005 the notion that photographs alone can form the basis of new species descriptions appears to have received strong (albeit not yet formal) endorsement from ICZN, and (2) photographs of Athreya's undescribed *liocichla* were circulating on the internet in that year and early 2006. This meant that anyone could have downloaded those photographs and published what in some quarters would have been considered a valid description prior to Athreya, the discoverer and therefore rightful describer of the species. Apart from his concern over the impact that collecting a specimen might have had, Athreya himself gave three reasons for proceeding with his description in the way he did, all relating to conservation; to them may be added this point, that someone else could easily have trumped him, particularly as the time needed for

permission to take a specimen was likely to have been very protracted.

Kannan cites three papers of mine and inclines to agree with the general tenor of them, which is to support collecting in strong terms and to seek greater rapprochement between the museum and conservation communities, but he misses the fact that I make specific provisos over possibly very rare new taxa and those liable to local extinction. This is a crucial area of concern which Kannan does not fully consider. It is not a question of museum scientists being 'bloodthirsty' (I worry that such vocabulary, even when used light-heartedly, risks polarising sensibilities on these issues). It is instead a matter of the appropriate use of the precautionary principle. I accept that the *liocichla* is likely to be commoner than we currently know, based on Athreya's experience, but we cannot be 100% certain of this. He was therefore in my view entirely correct, ethically and procedurally, to document and name the species without killing a specimen. As he stated, only when it is proved that

the species is commoner will it be appropriate to collect a series.

In his introductory paragraphs Kannan says that this case (1) 'may have added fuel to the already widespread feeling that museum collections are no longer necessary for describing new species' and, (2) 'worse, ... may actually make getting scientific collecting permits tougher'. He does not elaborate these points, but in any case I hope both are misapprehensions. First, Athreya took material and donated it to a museum, so (unlike the use of photographs as types in the *Science* paper) it can hardly be said that the case diminishes the need for museum collections. Second, there is no reason why such actions should exert any disruptive influence over the processes of permit issuance: collecting is licensed by bureaucrats according to laws and rules, not according to case history or precedent, so, unless a new law or rule is passed down by policy-makers, the *status quo* on permit issuance is unlikely to change.

REFERENCES

- ATHREYA, R. (2006): A new species of *Liocichla* (Aves: Timaliidae) from Eaglenest Wildlife Sanctuary, Arunachal Pradesh, India. *Indian Birds* 2: 82-94.
- DONEGAN, T.M. (2008): New species and subspecies descriptions do not and should not always require a dead type specimen. *Zootaxa* 1761: 37-48.
- DUBOIS, A. & A. NEMÉSIO (2007): Does nomenclatural availability of nomina of new species or subspecies require the deposition of vouchers in collections? *Zootaxa* 1409: 1-22.
- KANNAN, R. (2007): New bird descriptions without proper voucher specimens: reflections after the Bugun *Liocichla* case. *J. Bombay Nat. Hist. Soc.* 104(1): 12-18.
- JONES, T., C.L. EHARDT, T.M. BUTYNSKI, T.R.B. DAVENPORT, N.E. MPUNGA, S.J. MACHAGA & D.W. DE LUCA (2005): The Highland Mangabey *Lophocebus kipunji*: a new species of African monkey. *Science* 308: 1161-1164.
- NGUEMBOCK, B., J. FJELDSÅ, A. COULOUX & E. PASQUET (2008): Phylogeny of *Laniarius*: molecular data reveal *L. liberatus* synonymous with *L. erlangeri* and 'plumage coloration' as unreliable morphological characters for defining species and species groups. *Molecular Phylogenetics & Evolution* 48: 396-407.
- POLASZEK, A., P. GRUBB, C. GROVES, C.L. EHARDT & T.M. BUTYNSKI (2005): What constitutes a proper description? Response. *Science* 309: 2164-2166.

13. HEMIPTERAN FAUNA (INSECTA) INFESTING SANDAL *SANTALUM ALBUM* LINN. IN SOUTHERN INDIA¹

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Order Hemiptera comprises of a large and diverse group of insects, varying considerably in body form, wings, antennae, life histories, and food habits. The mouthparts of Hemiptera are modified for piercing and sucking plant sap, but in some of the true bugs they are used for sucking blood. Many species are serious pests of cultivated crop plants and forest trees, some species inject toxic materials into the plant while feeding, while some transmit disease causing organisms, and a few Heteropterans are vectors of diseases

of warm-blooded vertebrates (Triplehorn and Johnson 2005). These pests damage plants by inserting their mouthparts into plant tissue and sucking juices. Heavily infested plants become yellow, wilted, deformed or stunted, and may eventually die. In the present study, surveys were conducted to document the Hemipteran fauna infesting Sandal plants in nurseries, plantations and natural forests from 2004 to 2006 in southern India; the findings are reported in this paper.